

THE SPECIFIC CHARACTERS OF *HEPATICA AMERICANA*.

M. L. FERNALD.

It has long been known that the common American plant which has passed as *Hepatica triloba* Gilib. (1781) or more properly as *H. nobilis* Schreb. (1771) differs in some respects from the typical European plant, and in 1814 Pursh treated it as *H. triloba a obtusa* with the lobes of the leaves rounded and flowers "generally smaller than in the European plant."¹ In 1817 De Candolle separated it as *H. triloba β. americana*² on account of its much more pilose petioles and scapes, smaller flowers, and the more rounded lobes of the leaves. Somewhat later Ker took it up as *H. americana*, saying "We have no hesitation in recording the american plant as a distinct species from the european *triloba*, to which it has been generally appended for a variety. The lobes of the leaves are rounder and less pointed in the american plant, the flower-stem and leaf-stalks shaggily furred, the whole altogether smaller and of different appearance."³ Subsequent authors for the most part have not recognized the distinctness of the American and European plants, although the essentially continental distribution of the European species and the essentially Alleghanian range of the American indicate that the identity of the two should at least be questioned; since very few, if any, plants are strictly identical in these two very dissimilar areas. Examination of abundant fruiting material of the American plant shows it to possess an achene quite unlike that of the European species. In *H. nobilis* of Europe the plump, conic-ovoid achene tapers to a short thick beak which is terminated by the sessile stigma. In the American plant, on the other hand, the much more slender fusiform or lance-subulate achene is terminated by a very slender and definite, often curved, style. Possessing this definite fruit-character along with its usually much smaller flowers and its rounder-lobed leaves, the Alleghanian plant seems to be an endemic American species which should be called *Hepatica americana* (DC.) Ker.

Whether the plant of eastern Asia is identical with the eastern American or the European species the writer is unable to determine since he has had access to no Asiatic material.

¹ Pursh. Fl. Am. Sept. ii. 391 (1814).² DC. Syst. i. 216 (1817).³ Ker in Edwards, Bot. Reg. v. t. 387 (1819).

Hepatica nobilis in its foliage-character stands somewhat intermediate between the two American species, *H. americana* and *H. acutiloba* DC., and in its achenes more strongly suggests the latter species. The leaves of *H. nobilis*, however, are much more obtusely lobed and have less pronounced sinuses between the lobes. Its involucre bracts are more obtuse and its sepals ordinarily broader, so that *H. acutiloba* may appropriately be still maintained as an American species.

Typical *Hepatica americana* has the flowers blue-lavender, but two other conspicuous color-forms are found, one with white sepals and the other with rose-pink. These for convenience may be designated

HEPATICAM AMERICANAM, forma **candida**, sepalis albis — Frequent throughout the range. TYPE: rocky woods, Townshend, Vermont, April 16, 1912, L. A. Wheeler, in herb. New England Botanical Club.

HEPATICAM AMERICANAM, forma **rhodantha**, sepalis roseis — TYPE collected by Mrs. Florence van Fleet Lyman, communicated by C. G. Whiting from plants transferred to his garden at Springfield, Massachusetts (specimen in Gray Herb.).

GRAY HERBARIUM.

POLYMNIA UVEDALIA AND ITS VARIETIES.

S. F. BLAKE.

WHILE studying recently the variations in pubescence of a Mexican *Polymnia*, I had occasion to examine the abundant material in the Gray Herbarium of the common *P. Uvedalia* to determine whether similar differences were to be found in that species which might throw light on the classificatory value of the variations already noted in the Mexican plant. Somewhat to my surprise, the specimens of *Polymnia Uvedalia* fell readily into three rather distinct varieties of decided geographic trend. The common eastern plant, growing (so far as the material at hand indicates) from New York southward to Georgia, thence north and west to southern Illinois, is always very strongly glandular on the pedicels and branches of the inflorescence with both sessile and stalked glands, and the hispid-pilose hairs common to the other two forms are rare or wanting. A variation represented by